

# WATER SNAKE CARE (NERODIA SIPEDON AND NERODIA FASCIATA)

By Amy Hankins

**There are many types of snakes** all over the world that are commonly called “water snakes.” This care sheet will cover the common North American water snakes, *Nerodia sipedon* and *Nerodia fasciata*. These are two of the most widely distributed species of water snake in North America. They are also two of the easiest to care for in captivity. There are several other *Nerodia* species in the United States that this care sheet would work for as well, including *Nerodia erythrogaster* (Plain-Bellied water snake) and *Nerodia rhombifer* (Diamondback water snake). Several *Nerodia* species are more difficult to care for, however, and/or have different requirements than are covered here. For this reason, this caresheet will focus on two species only.

## CHOOSING YOUR WATER SNAKE

Water snakes are not commonly bred in captivity, although in recent years, there seems to be more and more interest in them. Many available in the reptile trade are wild caught, so the likelihood of a parasite load is far greater in these specimens. Of all the water snakes I have kept over the last 20-some years, I believe all of them were wild caught animals.

If you are able to find a person who breeds these snakes, a captive-born specimen is your best bet at avoiding parasitism. Catching your own is a possibility, but if you can avoid taking one out of the wild, it is definitely the best option. Before you capture *any animal* with intent to confine it, be sure to check your state’s laws and regulations regarding that animal. In Missouri, for instance, the “five alive” rule states: “A maximum of five (5) specimens of any native wildlife not listed in 3 CSR 10-4.110(4) or 3 CSR 10-9.240, except endangered species, bats, dusty hog-nosed snake, Kirtland’s snake, western fox snake, and alligator snapping turtles, may be taken and possessed alive by a resident of Missouri without permit, but these animals shall not be bought or sold.” (Missouri Wildlife Code).

Currently no species of *Nerodia* are protected within the state of Missouri except for the Mississippi Green Water Snake (*Nerodia cyclopion*). It is considered rare and endangered, and so it is unlawful to catch/keep.

Availability of water snakes is limited. If you happen to find, and consider purchasing, a water snake at a pet store, look it over thoroughly. These snakes are prone to water blisters, usually caused from keeping them in overly damp conditions. Many people, including staff at pet stores, mistakenly keep these snakes in a tank full of water, which is not the proper way to house them (see the ‘size and housing’ section below for more detail on that topic). Water snakes do turn up at reptile shows, but again, are not very commonly seen. A search online may bring results, but most animals offered for sale online are wild caught. Shipping charges often exceed the price of the actual snake.

If you already have snakes, a new addition **should be quarantined** for at least a month. Never put a new addition of any type of snake in the same room with already established captives—parasites and other diseases could be introduced into your population.

## SIZE AND HOUSING

Water snakes generally reach a length of three to five feet, the females usually reaching a larger size than the males. They are a decent sized snake that can be rather active. One adult can be housed in a 20-gallon long aquarium or something similar. I, personally, would go with something larger because of the activity level these snakes have. I would not recommend a wooden enclosure unless the wood is sealed. Water snakes can be messy, with both their bodily waste and their excitement when live fish are placed into their water receptacle. The cage can get wrecked, and get pretty wet pretty fast. Wood, being porous, absorbs water and waste material and can be difficult to clean thoroughly.

Many people get the idea that, since water snakes spend a large amount of time in water, that they should be kept in an aquarium filled with water. This is *not* the case. A water snake should be set up like just about any other snake (rat snake, ball python, etc), actually. Warmth, substrate, a water dish large enough to submerge their entire body in, and a place to hide are all that are needed. If a water snake’s enclosure is kept too damp, water blisters can develop.

A heat pad, found at pet stores and offered by various online dealers, can be obtained for warmth. The cage should have a temperature variant—that is--a cool side and a warm side. There should also be a hide for the snake to take shelter in. The heat pad should be placed underneath the side with the hiding place. A thermostat must be used with the heat pad because, though it is under the cage, a heat pad can get extremely hot and cause burns. The hide should be big enough for the snake to get into, yet feel secure. You can use anything from a box with a hole cut into the side or top to one of the more stylish types found at your local pet store. Keep in mind that the more decorations you put in your cage, the more involved cleaning will be. And as mentioned, water snakes can and will make a mess. *Anytime* a new piece of cage

furniture is added to the cage, it should be washed thoroughly with a soapy bleach/water solution. Branches/sticks found outdoors should be baked in the oven for 30-60 minutes at about 250-300°F.

I have always liked using above heat for my water snakes, namely lights. A light over the warm side of the cage will do nicely to keep your snake warm. They bask on rocks in the wild, and my captive water snakes always seem to enjoy basking in their cages, especially after a nice meal. I keep my warm side anywhere from 80-85 degrees Fahrenheit. UV lighting is not required. Oftentimes, a regular light bulb will keep the warm end of your enclosure plenty warm. I recommend either a thermometer in the cage or a heat gun to monitor the temperature. Though water snakes are a very tough species that seem to withstand cooler temperatures quite well, they need some warmth, especially to aid in digestion. If using a regular light bulb, turn it off at night to create a day/night cycle for the snake, just as it would have in nature.

**A word of caution: do not use heat rocks.** Many pet stores sell these for reptiles and they are dangerous. The rock must be placed directly inside the enclosure, so that the animal can come into direct contact with it. I have seen some very severe cases of burns on reptiles due to heat rocks. Steer clear of these!

Substrate can be any of a variety of things: newspaper, AstroTurf, reptile cage carpeting (found at pet stores), gravel, aspen, Reptibark™, and a number of other things. Some, like gravel, can be very labor-intensive, as you have to wash the gravel quite often. I have kept my water snakes on gravel and have two containers that I rotate between. When it is time to clean the cage, I have clean gravel standing by. I wash the dirty gravel in hot, soapy water and rinse it thoroughly with very hot water, letting it air-dry so it is ready for the next round. Disposable substrates are much less time-consuming. Keep in mind, again, the possibility of messiness. The simpler the setup, the easier it will be to clean.

## TEMPERAMENT/FOOD

Water snakes may not be a terribly popular species because of their reputation for having “bad attitudes.” I have kept over a dozen water snakes over the years, and have found many of them tame down quite nicely. I had a very large *Nerodia sipedon sipedon* (Northern Water Snake) that became just as tame as any of my corn snakes once she acclimated to captivity. Some do not seem to ever settle down. But in my experience, more do than do not. Frequent handling is key. At first, not only will a freshly caught water snake bite repeatedly, but they also secrete musk from their anal gland—and it smells awful! Another wonderfully delightful defense they have is regurgitating their recent meal on you. The first water snake I ever caught threw up a big bullfrog tadpole on me.

Don't let that deter you, however! Initially they *can* be ornery, but as I said, many do tame down and become very interesting (and sometimes entertaining) captives.

Water snakes eat fish, frogs and salamanders in the wild. Feeder fish, such as goldfish, guppies and “rosy red” minnows are readily available at pet stores. In addition, fresh fish bought at the supermarket are commonly used to feed captive water snakes. Frogs and other amphibians obviously are not readily available, and you should never catch wild prey for your snake—again, there is the risk of parasitism. **One caveat about feeder minnows and goldfish, however:** Feeder goldfish and rosy reds (aka tuffies, flathead minnows, and remember these come in both pink and brown colors) and catfish contain an enzyme known as thiaminase. This enzyme prevents the absorption of Vitamin B1, also known as thiamine. Over time, not being able to absorb this vitamin due to ingesting fish containing thiaminase, they will start having seizures, and losing voluntary muscle control (acting “drunk,” if you will). This is not to say that these can *never* be fed to your snake; just do not make it their staple diet. I lost my very first water snake when she was only eight years old, and I believe she would have lived at least twice as long had her diet not consisted of nothing but goldfish for most of those eight years. At the time I had the snake, the internet was in its infancy and the thiaminase issue was not widely known about.

Your best bet is to get the snake switched over to pinkie mice or rats. At the very end, when I had the water snake above and learned of thiaminase, I got her switched over to pinky rats eventually. Unfortunately, she had eaten so many goldfish that it was too late for her. She was also fed, on occasion, wild caught prey, as I was young and didn't know any better. I have a young Florida Banded Water snake (*Nerodia fasciata pictiventris*) at present that I obtained as a tiny baby. It took no time at all to get her switched over to pinkie mice, and now she snatches them right out of the feeding tongs with wild abandon. Usually, the pinkie has to be rubbed on a fish to get the snake interested, but sometimes, even that is not necessary. I got a garter snake to eat the pinkie by just dipping it into the water. All snakes will be a little different about this.

I feed live fish to my garter and water snakes as a treat. It is fun to dump a bunch of fish in a bowl and watch the snake hunt them and eat them. If you feed fish, only do it every once in a while and if you can, stick to guppies or silversides.

Silversides can be purchased frozen at many pet stores. There are many other fish that are safe and thiaminase-free as well. For a list of those fish, see the “Recommended Sources” at the end of this caresheet.

I recently learned, in a garter snake group I belong to on social media, that some of the garter snake keepers feed their snakes strips of raw chicken once in a while. I don't see a problem with that, and both my garter and water snakes love it. This should also just be an every-once-in-awhile treat, however.

## CONCLUSION

This is a very basic sheet on how to care for your water snake, touching on what I believe are the important points. Before purchasing any animal, research should always be done; never count on one care sheet as the be-all-end-all. There are many different keepers and we all have our own style. In time, you will develop your own, should you choose to get serious about this hobby. There are a lot of very good resources out there about water snakes, and I recommend you read everything you can get your hands on. If you meet an experienced keeper, get to know them, and pick their brain regularly, asking lots of questions.

Your animal, as an individual, will also let you know, in its way, what it needs: how it likes to be fed, what temperature it prefers, etc. Observe your snake on a regular basis. This is good for getting to know your snake's behavior patterns as well as keeping an eye out for anything unusual, like blisters on the skin, sores, bumps, or anything at all out of the ordinary. With water snakes it is highly advisable, with a newly obtained specimen, to take a stool sample into a veterinarian to check for parasites. Veterinary care for reptiles is much more readily available currently than it has been in the past. Below I have listed two excellent reptile vets in the Springfield area that have both treated several of my snakes.

With the right care, your water snake could live to be 10 plus years old.

## RECOMMENDED READING/RESOURCES

### Books

Mara, W.P. *Water Snakes of North America*. TFH Publications, 1995.

Perlowin, David. *Garter Snakes and Water Snakes: From the Experts at advanced vivarium systems (The Herpetocultural Library)*. Advanced Vivarium Systems, 2005.

### Websites

This is a very useful resource listing fish that are safe/not safe to feed your water snake:

<http://www.gartersnake.info/articles/2012/all-about-thiaminase.php>

New England Herp Society Water Snake Care Sheet

[http://www.neherp.com/care\\_guides/snakes/water\\_snake\\_care\\_sheet.html](http://www.neherp.com/care_guides/snakes/water_snake_care_sheet.html)

The Reptile Database lists all of the *Nerodia* species found in North America:

<http://reptile-database.reptarium.cz/>

### Local people with lots of experience with reptiles:

Dr. Ritt Enderson

Bradford Park Veterinary Hospital

1255 E Independence St, Springfield, MO 65804

(417) 886-0777

Finley Valley Serpentarium

699 Riverdale Rd, Ozark, MO 65721

(417) 581-3093

Sunshine Animal Hospital

3235 E Sunshine St A, Springfield, MO 65804

(417) 889-0090

**\*\*Surf the net! When you Google “water snakes” or “Nerodia” there is a plethora of information out there. There are also many groups on social media, such as Facebook, with some very experienced members who will be happy to answer your questions.**